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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,069	12/18/2000	Scott M. Kirkwood	00-4610	4609

7590 .12/28/2005

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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT PAPER NUMBER

2613

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/740,069	Applicant(s) KIRKWOOD, SCOTT M.	
	Examiner Andy S. Rao	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-23 is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/18/2000</u> . | 6) <input type="checkbox"/> Other: ____ |

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DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quesnel in view of Marx.

Quesnel discloses a pipeline inspection system (Quesnel: figure 1) comprising: an inspection probe on a probe conveyor that is extendable into a lateral pipeline from a base vehicle in a main pipeline (Quesnel: column 3, lines 45-55); the base vehicle has a vehicle motor for propulsion of the base vehicle in the main pipeline selectively (Quesnel: column 3, lines 55-57); the probe conveyor has a probe motor for propulsion of the probe conveyor with the mapping probe thereon in the lateral pipeline (Quesnel: column 4, lines 1-5); and a inspection recorder in electronic communication with the inspection probe from a predetermined remote position for recording predetermined inspection information from the inspection probe (Quesnel: column 4, lines 59-61: "...equipment in the inspection vehicle..."), as in claim 1. However,

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Quesnel fails to disclose using the system for the mapping of the pipeline network, and in particular for mapping a lateral pipeline, as in the claim. Marx discloses an automatic pipeline data collection and system which uses a monitoring device to generate data for providing a survey (i.e. a map) of a pipeline system (Marx: column 11, lines 45-68; column 12, lines 1-32) in order to keep track of changing pipeline conditions of the pipeline network over time (Marx: column 4, lines 55-60). Accordingly, given this teaching it would have been obvious for one of ordinary skill in the art to incorporate the survey generation of Marx into the Quesnel system in order to keep track of the changing pipeline conditions of the pipeline network over time. The Quesnel system, now incorporating the Marx survey generation, has all of the features of claim 1.

Regarding claim 2, the Quesnel system, now incorporating the Marx survey generation, has the mapping probe including a predetermined metallic mass (Marx: column 4, lines 35-40), and the mapping recorder includes a predetermined metal locator for marking position of the mapping probe from above ground in which the mapping probe is positioned (Quesnel: column 5, lines 38-41), as in the claim.

Regarding claim 3, the Quesnel system, now incorporating the Marx survey generation, has the base vehicle includes predetermined metallic mass (Marx: column 4, lines 35-40) and the mapping recorder includes a predetermined metal locator for marking position of the base vehicle from above ground in which the base vehicle is positioned (Quesnel: column 5, lines 38-41), as in the claim.

Regarding claim 4, the Quesnel system, now incorporating the Marx survey generation, has that the mapping probe includes a predetermined electronic emitter (Marx: column 6, lines

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14-50); and the mapping recorder includes a predetermined electronic probe receiver for marking position of the mapping probe from above ground in which the mapping probe is positioned (Marx: column 4, lines 35-40), as in the claim.

Regarding claim 5, the Quesnel system, now incorporating the Marx survey generation, has that the base vehicle includes a predetermined electronic vehicle emitter (Marx: column 6, lines 14-50); and the mapping recorder includes a predetermined electronic receiver for marking position of the base vehicle from above ground in which the base vehicle is positioned (Marx: column 4, lines 35-40), as in the claim.

Regarding claim 6-7, the Quesnel system, now incorporating the Marx survey generation, has that the mapping recorder includes a computer having graphics-producing capability for mapping positions of the mapping probe on a graphic map for communication to a computer printer for computer printout (Marx: column 12, lines 1-40), as in the claims.

Regarding claims 8-9, the Quesnel system, now incorporating the Marx survey generation, has that the mapping probe includes a probe TV camera with appropriate for video transmission of physical conditions and structure of the main lighting pipeline and the lateral pipeline (Quesnel: column 3, lines 45-50), and the mapping recorder includes an on-site TV monitor for displaying the physical conditions and structure of the main pipeline and the lateral pipeline (Marx: column 11, lines 10-15), as in the claims.

Regarding claims 10-11, the Quesnel system, now incorporating the Marx survey generation, has that the base vehicle includes a base TV camera with appropriate lighting for aiding video transmission of physical conditions and structure of the main pipeline and the lateral pipeline in addition to video transmission of the mapping probe (Quesnel: column 5, lines 40-45;

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figure 1, element 42), and that the mapping recorder includes an on-site TV monitor for displaying the physical conditions and structure of the main pipeline and the lateral pipeline in addition to the mapping probe (Marx: column 11, lines 10-15), as in the claims.

Regarding claim 12-13, the Quesnel system, now incorporating the Marx survey generation, has that the base vehicle includes a probe manipulator from which the probe conveyor is extendable into the lateral pipeline from the base vehicle (Quesnel: column 5, lines 5-17); and wherein the base vehicle includes a TV camera with appropriate lighting (Quesnel: column 3, lines 64-67) for video aiding transmission of physical conditions and structure of the main pipeline and the lateral pipeline in addition to video transmission of the mapping probe (Marx: column 4, lines 35-45); the mapping recorder includes an on-site TV monitor for displaying the physical conditions and structure of the main pipeline and the lateral pipeline in addition to the mapping probe (Marx: column 11, lines 10-15); and the probe manipulator has electronic manipulation controls that are operable remotely with a probe controller for controlling activity of the mapping probe selectively in relation to video display on the on-site TV monitor (Quesnel: column 3, lines 50-60), as in the claims

Regarding claims 14-17, although the Quesnel-Marx combination fails to disclose water jets, it does disclose compressed air jets for locomotive purposes (Quesnel: column 4, lines 45-65), accordingly, given this, it would have been obvious for one of ordinary skill in the art to substitute the air jets for water jets as in the claims in order to not only provide locomotion of the probes, but also flush the inner surfaces of the pipelines to clean out possible surface obstructions within the pipelines.

Allowable Subject Matter

4. Claims 18-23 are allowed.

Independent claims 18, 21, and 22 recite a plurality of elements that in combination are not met by nor obvious over the art of record. Accordingly, if rejected claims 1-17 are canceled, the application would be placed in a condition for allowance.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Caffon discloses a device for inspecting ventilation or air conditioning conduits. Kamigaichi discloses an in pipe inspection system. Muecki discloses a pipeline televising apparatus with a wireless remote controller. Wasson discloses a panoramic pipe inspector.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andy S. Rao
Primary Examiner
Art Unit 2613

asr
December 21, 2005

ANDY RAO
PRIMARY EXAMINER

